

Notice of Allowability

Application No.

10/789,472

Applicant(s)

OHATA ET AL.

Examiner

Art Unit

Cheryl M. Shechtman

2163

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/28/06.
2. ☒ The allowed claim(s) is/are 19-42.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. This communication is in response to Amendment filed April 28, 2006. Claims 19-42 are pending. Claims 1-18 are cancelled. Claims 19-42 are newly added.

Response to Arguments

2. Referring to the objection to the abstract, Applicant's amendment to remove the objectionable terminology is acknowledged. As such, the objection to the abstract is withdrawn.
3. Referring to the 35 USC 112 second paragraph rejections of claims 1-18, Applicant's cancellation of the claims renders the prior rejections moot.

Allowable Subject Matter

4. Claims 19-42 are allowed.

The following is an examiner's statement of reasons for allowance:

Referring to claim 19, Iwatani discloses collecting configuration status (performance) data for a storage area network (SAN) including a computer, a storage system, and a switch device coupled to the computer and the storage system (Fig. 3, elements 110, 300, and 410). Iwatani also discloses comparing the configuration status of the devices within the network at regular intervals to previously collected SAN configuration status data (see claim 2 of Iwatani), and an access path used by the computer for accessing from the computer to the storage system via the switch device, the access path including connecting ports of the computer, the storage system and the switch device (Fig. 3, elements 600 and 601; (port identification) PIDs, Fig. 3, elements

111, 112, and 121), thereby teaching collecting a first performance data from a first element of an access path.

Referring to claim 19, Nakamura discloses collecting configuration status (performance) data for a storage area network (SAN) including a computer, a storage system, and a switch device coupled to the computer and the storage system (Fig. 1, elements 10, 40, and 20; para. 80). Nakamura also discloses an internal access path (para. 39), a port between a disk subsystem (storage) and a host computer (para. 52), as well as retrieving contents of setting changes related to physical unit storage positions within the network from a historical table in order to detect performance degradation of an application (para. 72-75).

Referring to claim 19, Carney discloses monitoring performance within a network including adjusting an interval of polling a peripheral device (printer) based on a change in the status of the peripheral device (Abstract; Summary).

Neither, Iwatani taken either alone or in obvious combination disclose all the claimed features of applicant's instant invention, specifically including: selecting a second element of the access path based on relationship information including a relationship between the connecting ports included in the access path; and changing a collecting process of a second performance data from the second element of the access path if the first performance data collected from the first element of the access path indicates that a performance condition of the first element is satisfied, in order to determine a cause of the performance condition of the first element.

Also, there is no motivation to combine Nakamura and Carney to meet these limitations. It is for these reasons that applicant's invention defines over the prior art of record.

Claims 20-30 depend from claim 19 and are therefore also allowable.

Referring to claim 31, Iwatani discloses collecting configuration status (performance) data for a storage area network (SAN) including a computer, a storage system, and a switch device coupled to the computer and the storage system (Fig. 3, elements 110, 300, and 410), wherein a relationship information of connecting ports of the computer, switch device and storage system indicates an access path from the computer to the storage system (Fig. 3, elements 600 and 601; (port identification) PIDs, Fig. 3, elements 111, 112, and 121). Iwatani also discloses comparing the configuration status of the devices within the network at regular intervals to previously collected SAN configuration status data (see claim 2 of Iwatani), thereby teaching collecting first performance data from a first element of the access path.

Referring to claim 31, Nakamura discloses collecting configuration status (performance) data for a storage area network (SAN) including a computer, a storage system, and a switch device coupled to the computer and the storage system (Fig. 1, elements 10, 40, and 20; para. 80). Nakamura also discloses an internal access path (para. 39), a port between a disk subsystem (storage) and a host computer (para. 52), as well as retrieving contents of setting changes related to physical unit storage

positions within the network from a historical table in order to detect performance degradation of an application (para. 72-75).

Referring to claim 31, Carney discloses monitoring performance within a network including adjusting an interval of polling a peripheral device (printer) based on a change in the status of the peripheral device (Abstract; Summary).

Neither, Iwatani taken either alone or in obvious combination disclose all the claimed features of applicant's instant invention, specifically including: determining if the first performance data indicates that a change in performance of the first element has occurred that satisfies a predetermined condition; if it is determined that the change in performance of the first element does satisfy the predetermined condition, selecting a second element along the access path based on the relationship information and modifying a manner in which second performance data from the second element is collected in order to determine a cause of the change in performance of the first element.

Also, there is no motivation to combine Nakamura and Carney to meet these limitations. It is for these reasons that applicant's invention defines over the prior art of record.

Claims 32-42 depend from claim 31 and are therefore also allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. The prior art or art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents or publications are cited with respect to data network performance information monitoring:


US Publication 2004/0193827 by Mogi et al.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl M Shechtman who can be reached on (571) 272-4018. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 8, 2006
CMS


UYEN LE
PRIMARY EXAMINER